U.S. Fire Administration

Topical Fire Research Series

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THANKSGIVING DAY: RESIDENTIAL STRUCTURE FIRES

FINDINGS

- **Thanksgiving Day fires in residential structures cause more property damage and claim more lives than residential structure fires on other days. Surprisingly, fire injuries in residences decrease on Thanksgiving Day.**
- **Cooking is by far the leading cause of residential structure fires on Thanksgiving Day (42%), nearly double that of a normal day.**
- **The leading factor in the ignition of residential cooking fires is food left unattended.**

Source: NFPA and NFIRS

As with many U.S. holidays, fire incidence increases on Thanksgiving Day. This increase is troubling as it applies mostly to cooking fires in the family home.

Each year, nearly 4,300 fires in the United States occur on Thanksgiving day causing 15 fatalities, about 50 injuries, and nearly $27 million in property damage. Of these fires, 1,450 are in residential structures that claim 15 lives, injure 41, and cause an estimated $21 million in damage.[1]

On Thanksgiving Day, the incidence of vehicle, outdoor, and other fires decline; however, the number of residential structure fires increases from 23 percent to 36 percent of the daily average (Figure 1).

Thanksgiving Day residential structure fires tend to cause more property damage and claim more lives, but do not injure as many people as residential fires occurring on the average day (Figure 2). Dollar loss per incident rises 25 percent on Thanksgiving Day.

Figure 1. Fire Incident Types on Thanksgiving Day
(3-year average, NFIRS data 1996–98)

INCIDENT TYPE	PERCENT OF AVERAGE DAILY TOTAL	PERCENT OF THANKSGIVING DAY TOTAL
Residential Structure	22.9	35.7
Non-Residential Structure	8.6	7.1
Vehicle	24.0	19.5
Outdoor	43.3	35.2
Other Fires/Spills/Leaks	2.2	2.5

Source: NFIRS only

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Causes

Cooking is the leading cause of residential structure fires on Thanksgiving Day and is responsible for more fires than the following four leading causes combined (Figure 3). For the average day (both in general and for November specifically), the leading cause of structure fires is cooking, but other causes play more dominant roles. For example, incendiary/suspicious fires are much more common on the average day than on Thanksgiving.

Food left unattended is the leading factor in the ignition of residential cooking fires on Thanksgiving Day. As with cooking fires in general, the preponderance (83 percent) of Thanksgiving Day residential structure fires are the result of incidents involving stoves and ovens.

Thanksgiving Day has more than double the number of residential cooking fires than an average day (Figure 4). The day after Thanksgiving traditionally has a substantial decrease in such fires, perhaps because people eat leftovers rather than cook.

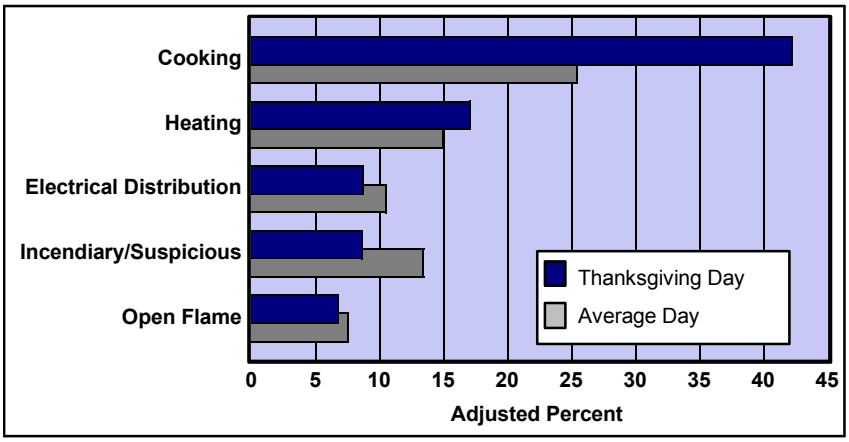
Not surprisingly, cooking is the leading cause of residential structure fire injuries on Thanksgiving, followed by open flame, electrical distribution, and appliances. In contrast, the leading causes of residential fire fatalities on Thanksgiving are smoking and cooking (46 percent each), followed by arson (9 percent).

Figure 2. Loss Measures for Residential Structure Fires on Thanksgiving Day
(3-year average, NFIRS data 1996–98)

LOSS MEASURE	AVERAGE DAILY FIRES	THANKSGIVING DAY FIRES
Dollar Loss/Fire	$11,273	$14,097
Injuries/1,000 Fires	48.0	30.3
Fatalities/1,000 Fires	7.7	9.9

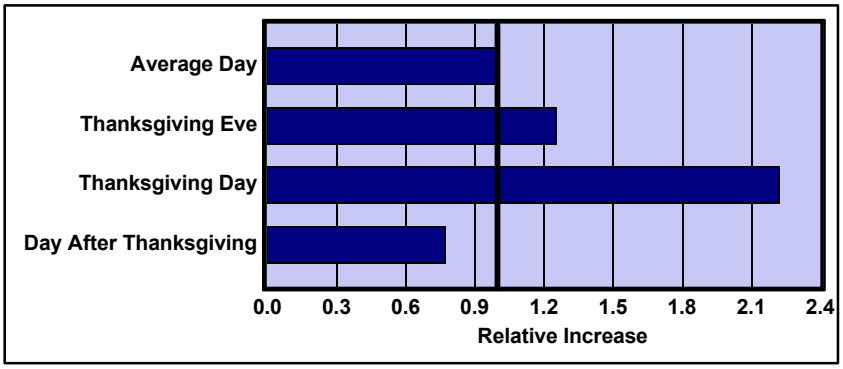
Source: NFIRS only

Figure 3. Causes of Residential Structure Fires on Thanksgiving Day
(3-year average, NFIRS data 1996–98)



Source: NFIRS only

Figure 4. Increase in Thanksgiving Day Cooking Fires in Residential Structures
(3-year average, NFIRS data 1996–98)



Source: NFIRS only

Examples

- Thanksgiving 2001 (November 22): An early morning duplex house fire killed two adults and injured two others. Improperly discarded smoking matrials were believed to have caused the fire, which originated in the downstairs apartment.[2]
- Thanksgiving 2000 (November 23): A fire seriously damaged a house and destroyed a garage and two vehicles when a deep-fat fryer malfunctioned. The homeowner was in the garage attempting to deep-fat fry a turkey when the fryer malfunctioned, igniting the fire. Nobody was seriously injured.[3]

- Thanksgiving 2000 (November 23): A man was killed when a fire started in the kitchen and quickly moved throughout the house. The fire was caused by an electrical malfunction in the stove clock timer. The man was found on the floor in a downstairs bedroom toward the back of the house.[4]

Notes:

1. National estimates are based on data from the National Fire Incident Reporting System (NFIRS) (1996–1998) and the National Fire Protection Association's (NFPA's) annual survey, *Fire Loss in the United States.*
2. http://www.rvfd.org/incidents/november01/blanford.htm. Accessed November 14, 2002.
3. "Turkey Fryer Blamed in Syracuse Fire," *Times–Union News,* November 24, 2000.
4. http://www.sigepcleveland.org/news/borowy_hero2.htm. Accessed November 7, 2002.

To review the detailed methodology used in this analysis, click METHODOLOGY. To request additional information, or to comment on this report, visit http://www.usfa.fema.gov/feedback/